

## CLAIMS

1. A sheet member transfer device for forming a cylindrical tire constitutive member by joining a leading end and a trailing end of a sheet member with each other, wherein the sheet member is formed by successively joining side edges of a plurality of narrow strip members with each other, said strip members having a constant width, said sheet member transfer device comprising:

a transfer drum for forming the sheet member by applying said plurality of strip members onto an outer peripheral surface of the transfer drum so that the width direction of each strip member is oriented in the circumferential direction of the transfer drum, and a receiver drum for forming the cylindrical tire constitutive member by joining the leading end and the trailing end of the sheet member which has been transferred from the transfer drum, with said transfer drum urged against the receiver drum and said receiver drum rotated in an opposite direction to the transfer drum;

said transfer drum being provided, on its outer peripheral surface, with a leading end application region for applying a strip member forming said leading end of the sheet member, and a plurality of application regions following said leading end application region and arranged in the circumferential direction of the transfer drum at a pitch which corresponds to the width of the strip member, said application regions being divided into a plurality of low adhesion sections with a low adhesion force, and a plurality of high adhesion sections with a high adhesion force, said low adhesion sections and said high adhesion sections being alternately arranged in the width direction of the transfer drum;

radial expansion/contraction means for moving the high adhesion sections radially inwards of the low adhesion sections, said high adhesion sections and low adhesion sections being flush with each other when the narrow strip members are applied to the transfer drum, and said high adhesion sections being moved by said radial expansion/contraction means radially inwards of the low adhesion sections, when the sheet member is transferred from the transfer drum to the receiver drum;

said radial expansion/contraction means comprising collective expansion/contraction means for moving radially inwards the high adhesion sections in the

leading end application region and the application region adjacent thereto, respectively, and moving means for individually moving radially inwards the high adhesion sections in the remaining application regions;

5       said collective expansion/contraction means comprising cam followers which are pivoted to the high adhesion sections, respectively, and movable radially inwards and outwards, a rotary cam which can be rotated to move the cam followers radially inwards and outwards, and cam driving means for rotating the rotary cam in the circumferential direction of the transfer drum.

10       2.    The sheet member transfer device according to claim 1, wherein the low adhesion sections in at least the leading end application region are comprised of resilient material.

15       3.    The sheet member transfer device according to claim 1 or 2, wherein the low adhesion sections in at least the leading end application region are comprised of silicone rubber at least in outer surface regions thereof.

20       4.    The sheet member transfer device according to any one of claims 1 to 3, wherein the high adhesion sections in at least the leading end application region have outer surfaces in the form of mirror-finished surfaces.

      5.    The sheet member transfer device according to claim 4, wherein the mirror-finished surfaces are formed by plating with respect to the outer surfaces.

25       6.    The sheet member transfer device according to any one of claims 1 to 5, wherein the low adhesion sections and the high adhesion sections in at least the leading end application region are arranged alternately in the axial direction.